

Appendix I. Figures

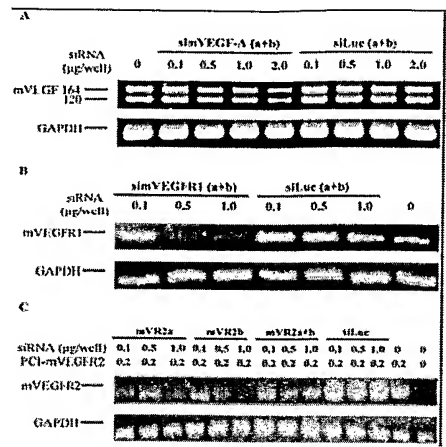


Figure 1.

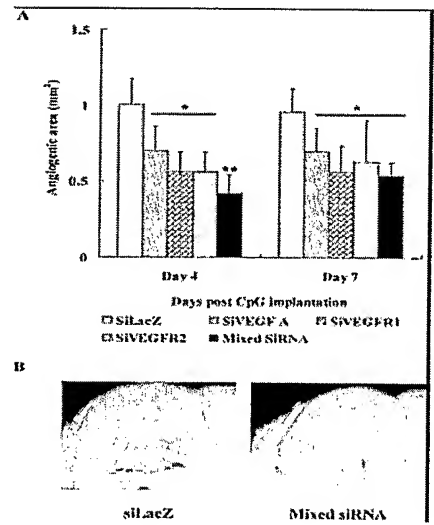


Figure 2.

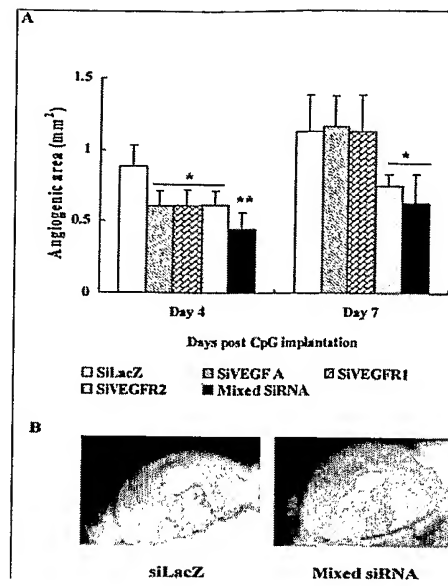


Figure 3.

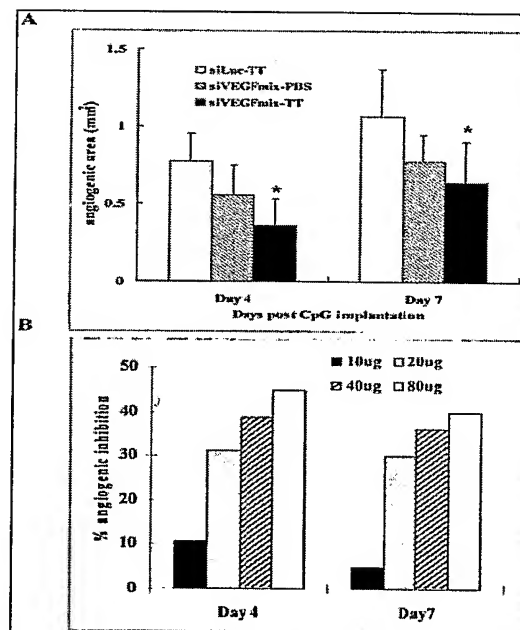


Figure 4.

Figure 5.

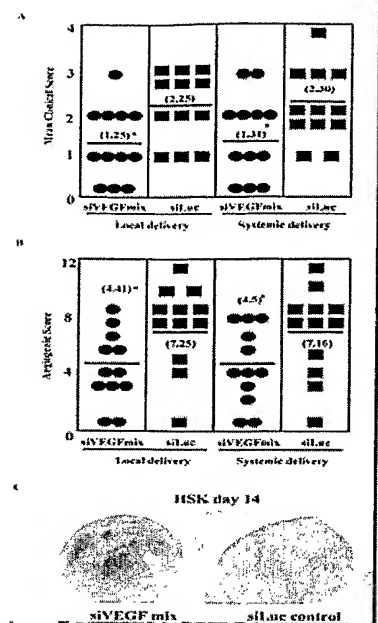
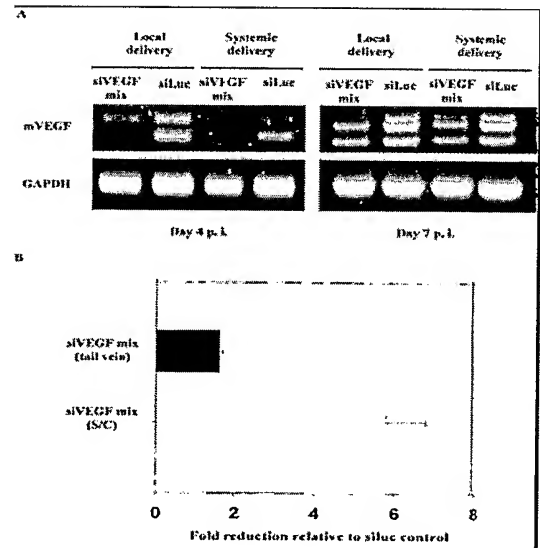


Figure 6.



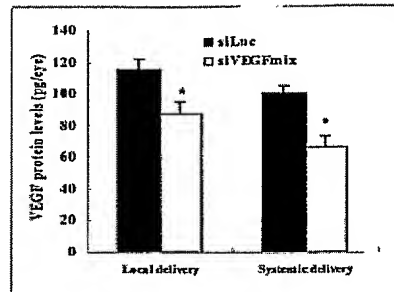


Figure 7.

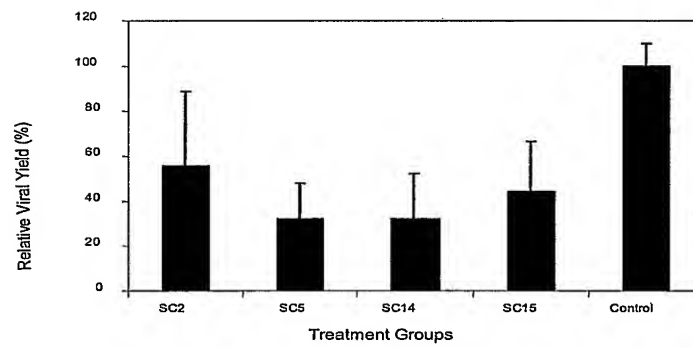


Figure 8.

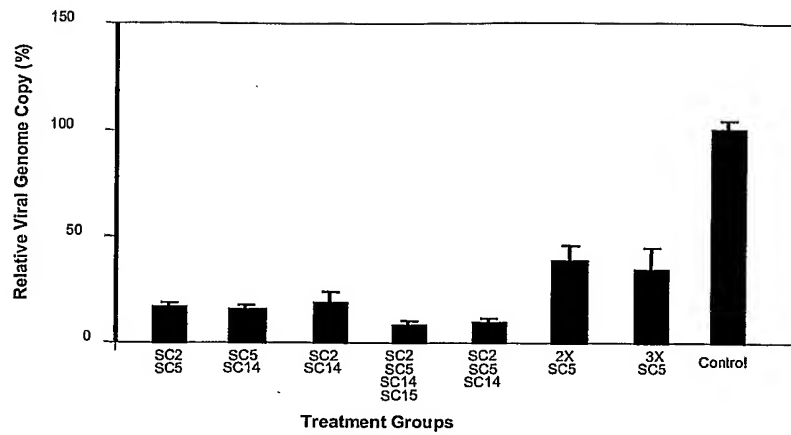


Figure 9.

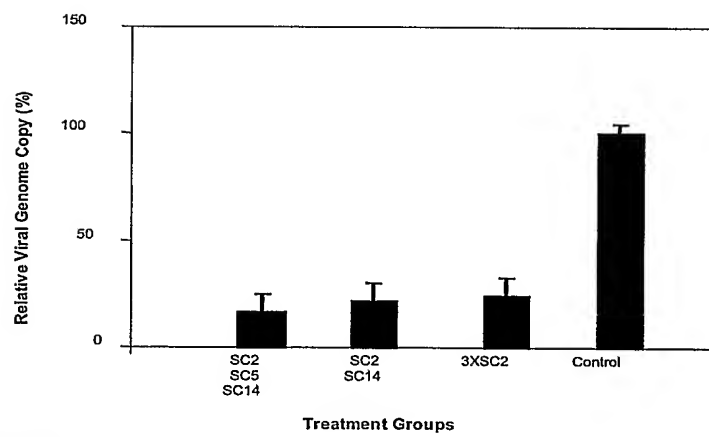


Figure 10.

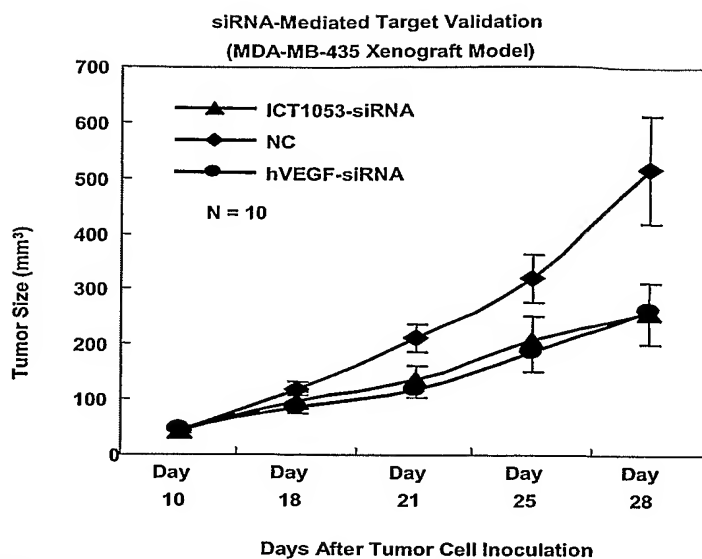


Figure 11.

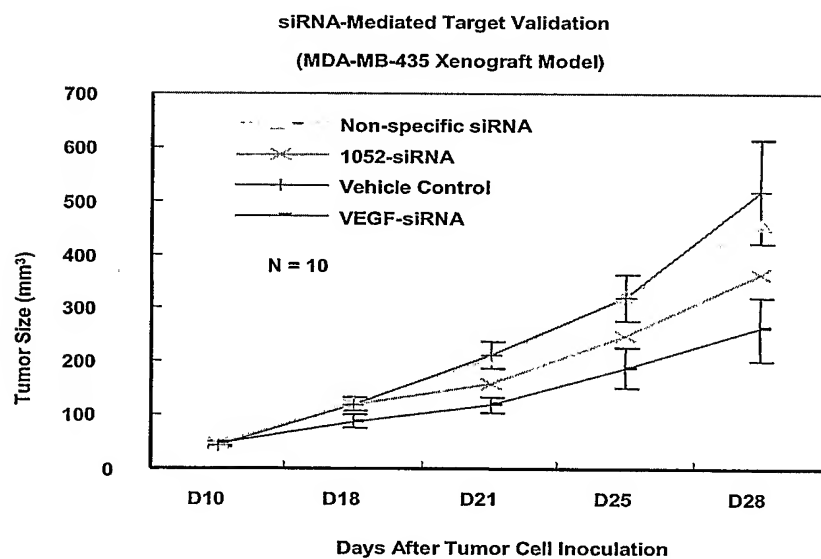


Figure 12.

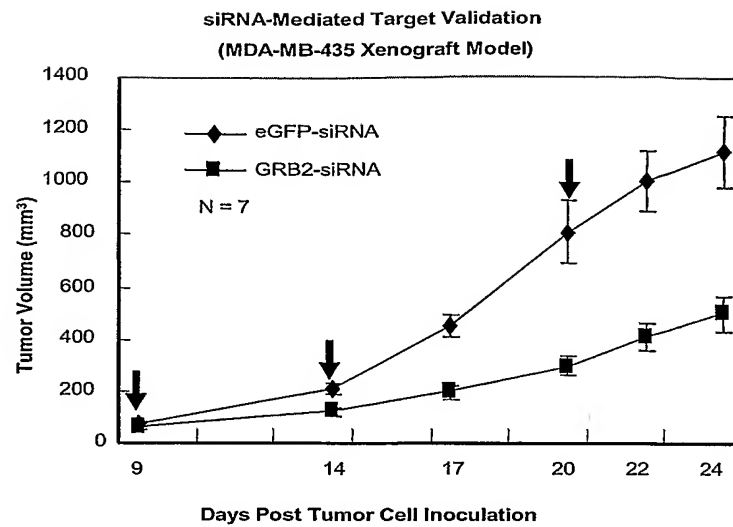


Figure 13.

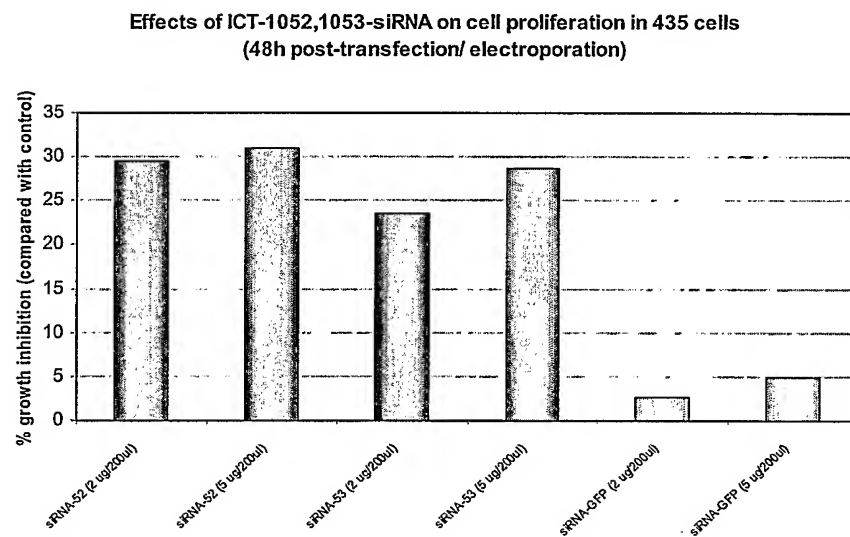


Figure 14.

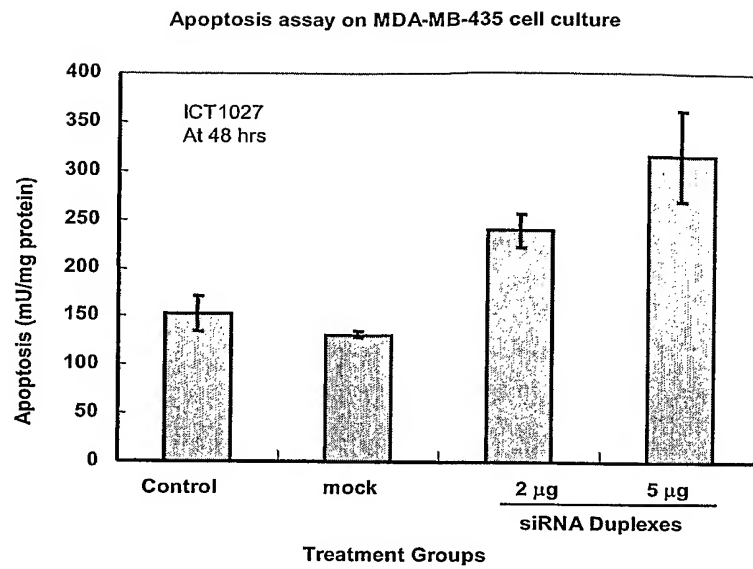
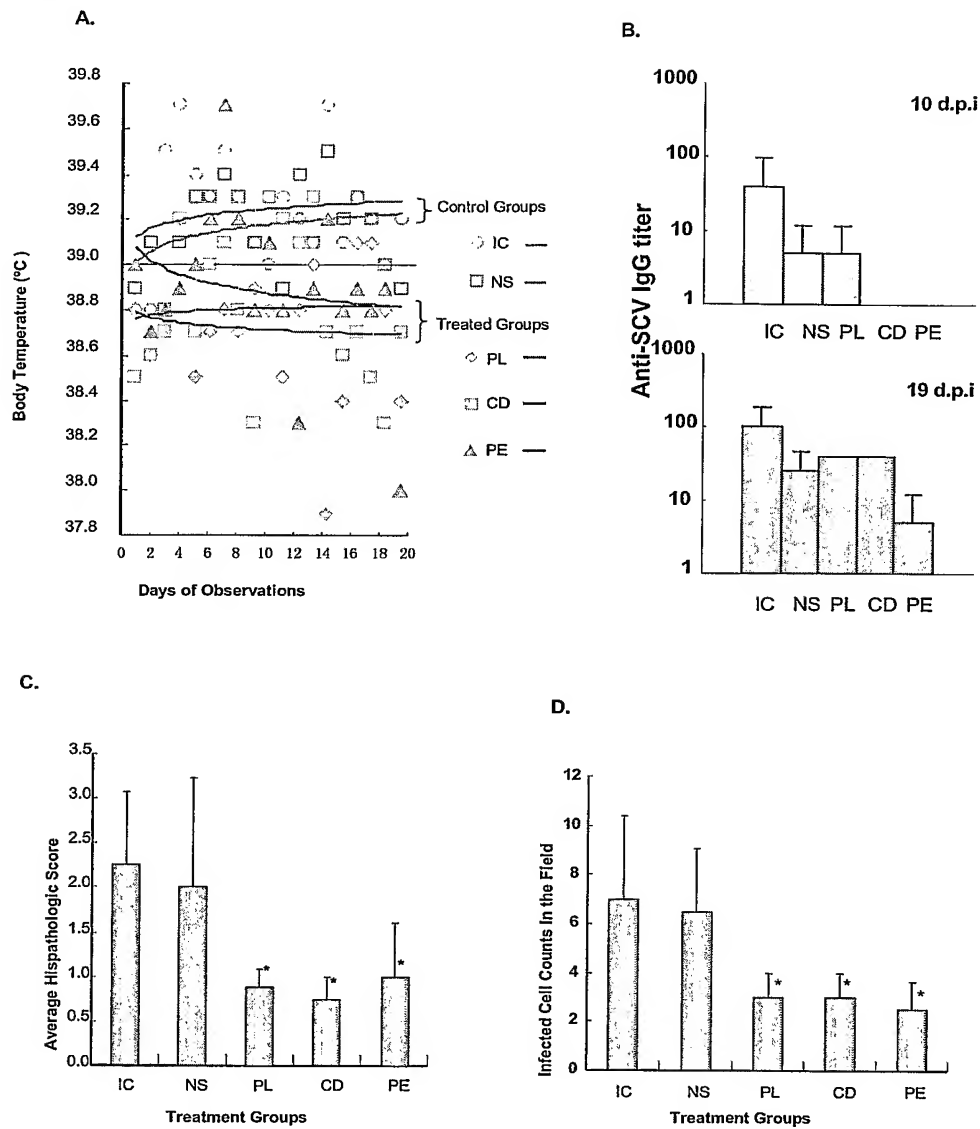


Figure 15.

Figure 16.



Appendix II. siRNA Targeted Sequences for Combinational Use**SS1.VEGF pathway****SS1.1. VEGF-A**

VEGF gene: human VEGF, Accession : XM_052681, Gene ID: 14781453, mouse VEGF, Accession: M95200, Gene ID: 202350.
20 siRNA candidates were selected:

#	Position	Sequence
VEGF-A-1	64-84	AAGTGGTCCCAGGCTGCACCC
VEGF-A-2	467-487	AAGATCCGCAGACGTGTAAAT
VEGF-A-3	498-518	AAACACAGACTCGCGTTGCAA
VEGF-A-4	499-519	AACACAGACTCGCGTTGCAAG
VEGF-A-5	517-537	AAGGCGAGGCAGCTTGAGTTA
VEGF-A-6	537-557	AAACGAACGTACTTGCAGATG
VEGF-A-7	538-558	AACGAACGTACTTGCAGATGT
VEGF-A-8	542-564	AACGTACTTGCAGATGTGACA
VEGF-A-9	162-182	AATCGAGACCCTGGTGGACAT
VEGF-A-10	338-358	AAGGCCAGCACATAGGAGAGA
VEGF-A-11	92-112	AAGGAGGAGGGCAGAATCATC
VEGF-A-12	386-406	AATGCAGACCAAAGAAAGATA
VEGF-A-13	380-400	AATGTGAATGCAGACCAAAGA
VEGF-A-14	301-321	AACATCACCATGCAGATTATG
VEGF-A-15	451-471	AAGCATTTGTTTGTACAAGAT
VEGF-A-16	116-136	AAGTGGTGAAGTTCATGGATG
VEGF-A-17	401-421	AAGATAGAGCAAGACAAGAAA
VEGF-A-18	421-441	AATCCCTGTGGGCCTTGCTCA
VEGF-A-19	379-499	AAATGTGAATGCAGACCAAAG
VEGF-A-20	262-282	AATGACGAGGGCCTGGAGTGT

SS1.2. VEGF-B

VEGF-B gene: human VEGF-B, Accession : NM_003377.3, Gene ID: 39725673
10 siRNA candidates were selected:

#	Position	Sequence
VEGF-B-1	140-160	AAAGTGGTGTCATGGATAGAT
VEGF-B-2	141-163	AAGTGGTGTCATGGATAGATG
VEGF-B-3	236-258	AAACAGCTGGTGCCCAGCTGC
VEGF-B-4	327-349	AAGTCCGGATGCAGATCCTCA
VEGF-B-5	390-412	AAGAACACAGCCAGTGTGAAT
VEGF-B-6	393-415	AACACAGCCAGTGTGAATGCA
VEGF-B-7	424-446	AAAGGACAGTGCTGTGAAGCC
VEGF-B-8	425-447	AAGGACAGTGCTGTGAAGCCA
VEGF-B-9	440-462	AAGCCAGACAGGGCTGCCACT
VEGF-B-10	670-692	AACCCAGACACCTGCAGGTGC

SS1.3.

VEGF R-1 gene: human VEGF-R1, (hFLT-1), Accession : AF063657, Gene ID: 3132830,

mouse VEGF-R1, (mFLT-1), Accession: D88689, Gene ID: 2809068),
20 siRNA candidates were selected:

#	Position	Sequence
VEGFR1-1	1706-1728	AAGGAGAGGACCTGAAACTGT
VEGFR1-2	2698-2720	AAGCAAGGAGGGCCTCTGATG
VEGFR1-3	2702-2724	AAGGAGGGCCTCTGATGGTGA
VEGFR1-4	2755-2777	AACTACCTCAAGAGCAAACGT
VEGFR1-5	3014-3036	AAGTGGCCAGAGGCATGGAGT
VEGFR1-6	3048-3070	AAAGTGCATTTCATCGGGACCT
VEGFR1-7	3049-3071	AAGTGCATTTCATCGGGACCTG
VEGFR1-8	2140-2160	AGCACGCTGTTTATTGAAAGA
VEGFR1-9	568-588	AAGGGCTTCATCATATCAAAT
VEGFR1-10	215-235	AAAGGCTGAGCATAACTAAAT
VEGFR1-11	2352-2372	AAGGTCTTCTTCTGAAATAAA
VEGFR1-12	3517-3537	AATGCCATACTGACAGGAAAT
VEGFR1-13	1190-1210	AAGAGGATGCAGGGAATTATA
VEGFR1-14	834-854	AAGGCGACGAATTGACCAAAG
VEGFR1-15	89-109	AAGATCCTGAACTGAGTTTAA
VEGFR1-16	216-236	AAGGCTGAGCATAACTAAATC
VEGFR1-17	3429-3449	AAGGCCAAGATTTGCAGAACT
VEGFR1-18	967-987	AACACCTCAGTGCATATATAT
VEGFR1-19	567-587	AAAGGGCTTCATCATATCAAA
VEGFR1-20	1938-1958	AATCCTCCAGAAGAAAGAAAT

SS1.4.

VEGF R-2 gene: human VEGF-R2, (hKDR), Accession : AF063658, Gene ID: 3132832, mouse VEGF-R2, (mFLK-1), Accession: X70842, Gene ID: 57923), 20 siRNA candidates were selected:

#	Position	Sequence
VEGFR2-1	523-545	AACAGAATTTCTGTTGACAGC
VEGFR2-2	2387-2409	AACTGAAGACAGGCTACTTGT
VEGFR2-3	2989-3011	AAGGACTTCCTGACCTTGGAG
VEGFR2-4	3032-3054	AAGTGGCTAAGGGCATGGAGT
VEGFR2-5	3040-3062	AAGGGCATGGAGTTCTTGGCA
VEGFR2-6	3401-3423	AAATGTACCAGACCATGCTGG
VEGFR2-7	3632-3654	AATTCCATTATGACAACACAG
VEGFR2-8	3676-3698	AACAGTAAGCGAAAGAGCCGG
VEGFR2-9	3641-3661	ATGACAACACAGCAGGAATCA
VEGFR2-10	357-377	AAGCTCAGCACACAGAAAGAC
VEGFR2-11	493-513	AATGCGGCGGTGGTGACAGTA
VEGFR2-12	1837-1857	AATGCCACCATGTTCTCTAAT
VEGFR2-13	2969-2989	AAGCTCCTGAAGATCTGTATA
VEGFR2-14	2549-2569	AAGCAGATGCCTTTGGAATTG
VEGFR2-15	3906-3926	AAGCGGCTACCAGTCCGGATA

VEGFR2-16	2941-2961	AAGTCCCTCAGTGATGTAGAA
VEGFR2-17	304-324	AAGTGCTTCTACCGGGAACT
VEGFR2-18	2862-2882	AATCCCTGTGGATCTGAAACG
VEGFR2-19	130-150	AAGGCTAATAACAACCTCTTCAA
VEGFR2-20	1204-1224	AATCCCATTTCAAAGGAGAAG

SS2.EGF Pathway**SS2.1.**

EGF gene: Human EGF, Accession: NM_001963, Gene ID: 6031163.

20 siRNA candidates were selected:

#	Position	Sequence
EGF-1	2042-2062	AAGTGGATAGAGAGAGCTAAT
EGF-2	3873-3893	AAGGCTGCTGGATTCCAGTAT
EGF-3	2426-2446	AAGCAGTCTGTGATTGAAATG
EGF-4	2621-2641	AAGCCCTCATCACTGGTTGTG
EGF-5	1273-1293	AAAGGACATGGTTAGAATTAA
EGF-6	2328-2348	AAGGCCTTGGCCGCTGGTTA
EGF-7	174-194	AAGGGTGTCAGGTATTTCTTA
EGF-8	3922-3942	AATGGAGCGAAGCTTTCATAT
EGF-9	1496-1516	AAGTACTGTGAAGATGTTAAT
EGF-10	1274-1294	AAGGACATGGTTAGAATTAAAC
EGF-11	531-551	AAGGTACTCTCGCAGGAAATG
EGF-12	2686-2706	AAACGGAGGCTGTGAACATAT
EGF-13	2263-2283	AATGGCCAAGAGATTATTCTG
EGF-14	1292-1312	AACCTCCATTCATCATTTGTA
EGF-15	261-281	AAGGTCTCTCAGTTGAAGAAA
EGF-16	3218-3238	AATGCCAGCTGCACAAATACA
EGF-17	1019-1039	AAGGCTCTGTTGGAGACATCA
EGF-18	2576-2596	AAGAGGACTGGCAAAGATAGA
EGF-19	760-780	AAGGCAAGAGAGAGTATGTAA
EGF-20	765-785	AAGAGAGAGTATGTAATATAG

SS2.2.

EGF R gene: Human EGF-R, Accession: NM_005228, Gene ID: 41327737),
mouse EGF-R, Accession : NM_207655, Gene ID: 46560581,
5 siRNA candidates were selected:

#	Position	Sequence
EGFR-1	483-505	AAAGACCATCCAGGAGGTGGC
EGFR-2	2869-2889	AAAGTGCCTATCAAGTGGATG
EGFR-3	2870-2890	AAGTGCCTATCAAGTGGATGG
EGFR-4	3751-3771	AACCCTGACTACCAGCAGGAC
EGFR-5	3755-3775	CTGACTACCAGCAGGACTTCT

SS2.3.

HER-2 gene: Human HER-2, Accession: M11730, Gene ID:183986,
mouse HER-2, Accession : BC053078, Gene ID: 31419374,
5 siRNA candidates were selected:

#	Position	Sequence
HER2-1	1255-1275	AAGATCTTTGGGAGCCTGGCA
HER2-2	1253-1273	AAGAAGATCTTTGGGAGCCTG
HER2-3	2797-2817	AAGGTGCCCATCAAGTGGATG
HER2-4	3019-3039	AAATGTTGGATGATTGACTCT
HER2-5	3805-3825	AACCTCTATTACTGGGACCAG

SS2.4.

HER-3 gene: Human HER-3, Accession: M34309, Gene ID:183990,
mouse HER-3, Accession : XM_125954, Gene ID: 38091004,
13 siRNA candidates were selected:

#	Position	Sequence
HER3-1	678-698	AATTGACTGGAGGGACATCGT
HER3-2	1264-1284	AAGATCCTGGGCAACCTGGAC
HER3-3	1537-1557	AAGGAAATTAGTGCTGGGCGT
HER3-4	2404-2424	AAGATTCCAGTCTGCATTAA
HER3-5	2857-2877	AAATACACACACCAGAGTGAT
HER3-6	2858-2878	AATACACACACCAGAGTGATG
HER3-7	3770-3790	AAGATGAAGATGAGGAGTATG
HER3-8	3776-3796	AACCTCTATTACTGGGACCAG
HER3-9	1118-1138	CTGACAAGATGGAAGTAGATA
HER3-10	1119-1139	TGACAAGATGGAAGTAGATAA
HER3-11	2402-2422	TCAAGATTCCAGTCTGCATTA
HER3-12	2403-2423	CAAGATTCCAGTCTGCATTAA
HER3-13	2805-2825	TGAGGCCAAGACTCCAATTAA

SS2.5.

HER-4 gene: Human HER-4, Accession: NM_005235, Gene ID:4885214,
mouse HER-4, Accession : XM_136682, Gene ID: 38049556.
7 siRNA candidates were selected:

#	Position	Sequence
HER4-1	462-482	AAATGGTGGAGTCTATGTAGA
HER4-2	463-483	AATGGTGGAGTCTATGTAGAC
HER4-3	731-751	AATGTGCTGGAGGCTGCTCAG
HER4-4	838-860	AATCCAACCACCTTTCAACTG
HER4-5	1227-1247	AACAGGTTTCCTGAACATACA
HER4-6	1450-1470	AACTGGACAACACTCTTCAGC
HER4-7	1909-1929	AACGGTCCCCTAGTCATGAC

SS3. FGF Pathway**SS3.1.**

FGF-2 gene: Human FGF-2 (basic FGF), Accession: NM_002006, Gene ID: 41352694.
20 siRNA candidates were selected:

#	Position	Sequence
FGF-2-1	630-650	AAGAGCGACCCTCACATCAAG
FGF-2-2	661-681	AAGCAGAAGAGAGAGGAGTTG
FGF-2-3	849-869	AAACGAACTGGGCAGTATAAA
FGF-2-4	880-900	AAACAGGACCTGGGCAGAAAG
FGF-2-5	854-874	AACTGGGCAGTATAAACTTGG
FGF-2-6	648-668	AAGCTACAACCTTCAAGCAGAA
FGF-2-7	850-870	AACGAACTGGGCAGTATAAAC
FGF-2-8	881-901	AACAGGACCTGGGCAGAAAGC
FGF-2-9	667-687	AAGAGAGAGGAGTTGTGTCTA
FGF-2-10	723-743	AAGGAAGATGGAAGATTACTG
FGF-2-11	734-754	AAGATTACTGGCTTCTAAATG
FGF-2-12	781-801	AACGATTGGAATCTAATAACT
FGF-2-13	690-710	AAAGGAGTGTGTGCTAACCGT
FGF-2-14	818-838	AAGGAAATACACCAGTTGGTA
FGF-2-15	804-824	AATACTTACCGGTCAAGGAAA
FGF-2-16	750-770	AAATGTGTTACGGATGAGTGT
FGF-2-17	822-842	AAATACACCAGTTGGTATGTG
FGF-2-18	655-675	AACTTCAAGCAGAAGAGAGAG
FGF-2-19	823-843	AATACACCAGTTGGTATGTGG
FGF-2-20	798-818	AACTACAATACTTACCGGTCA

SS3.2.

FGF-1 gene: Human FGF-1 (acidic FGF),
transcript variant 1, Accession: NM_000800, Gene ID: 15055546;
transcript variant 2, Accession: NM_033136, Gene ID: 15055540;
transcript variant 3, Accession: NM_033137, Gene ID: 15055544.
20 siRNA candidates were selected:

#	Position	Sequence
FGF-1-1	447-467	AAGGCTGGAGGAGAACCATTA
FGF-1-2	214-234	AAGCCCAAACCTCCTCTACTGT
FGF-1-3	190-210	AATCTGCCTCCAGGGAATTAC
FGF-1-4	114-134	AAGCGCCACAAGCAGCAGCTG
FGF-1-5	484-504	AAGAAGCATGCAGAGAAGAAT
FGF-1-6	539-559	AACGCGGTCCTCGGACTCACT
FGF-1-7	460-480	AACCATTACAACACCTATATA
FGF-1-8	97-117	AAGCTCTTTAGTCTTGAAAGC
FGF-1-9	469-489	AACACCTATATATCCAAGAAG
FGF-1-10	221-241	AACTCCTCTACTGTAGCAACG
FGF-1-11	288-308	AAGGGACAGGAGCGACCAGCA
FGF-1-12	487-507	AAGCATGCAGAGAAGAATTGG
FGF-1-13	113-133	AAAGCGCCACAAGCAGCAGCT
FGF-1-14	502-522	AATTGGTTTGTGTTGGCCTCAAG
FGF-1-15	520-540	AAGAAGAATGGGAGCTGCAAA
FGF-1-16	211-231	AAGAAGCCCAAACCTCCTCTAC
FGF-1-17	538-558	AAACGCGGTCCTCGGACTCAC
FGF-1-18	526-546	AATGGGAGCTGCAAACGCGGT
FGF-1-19	220-240	AAACTCCTCTACTGTAGCAAC
FGF-1-20	424-444	AATGAGGAATGTTTGTTCCTG

SS3.3.

FGFR2 gene: Human FGFR2

transcript variant 1, Accession: NM_000141, Gene ID: 13186239;
transcript variant 2, Accession: NM_022969, Gene ID: 13186252;
transcript variant 3, Accession: NM_022970, Gene ID: 13186254.
transcript variant 4, Accession: NM_022971, Gene ID: 13186256;
transcript variant 5, Accession: NM_022972, Gene ID: 13186258;
transcript variant 6, Accession: NM_022973, Gene ID: 13186260.
transcript variant 7, Accession: NM_022974, Gene ID: 13186262;
transcript variant 8, Accession: NM_022975, Gene ID: 27754768;
transcript variant 9, Accession: NM_022976, Gene ID: 13186266.
transcript variant 10, Accession: NM_023028, Gene ID: 13186268;
transcript variant 11, Accession: NM_023029, Gene ID: 13186242;
transcript variant 12, Accession: NM_023030, Gene ID: 13186270.
transcript variant 13, Accession: NM_023031, Gene ID: 13186272;
20 siRNA candidates were selected:

#	Position	Sequence
FGFR2-1	1368-1388	AAGCCGGACTGCCGGCAAATG
FGFR2-2	2610-2630	AAGCCCTGTTTGATAGAGTAT
FGFR2-3	2088-2108	AAGCAGTGGGAATTGACAAAG
FGFR2-4	2297-2317	AAAGGCAACCTCCGAGAATAC
FGFR2-5	1753-1773	AATCGCCTGTATGGTGGTAAC
FGFR2-6	2010-2030	AATGGGAGTTTCCAAGAGATA
FGFR2-7	699-719	AAGAGCCACCAACCAAATACC
FGFR2-8	2843-2863	AAGCAGTTGGTAGAAGACTTG
FGFR2-9	1187-1207	AAGCAGGAGCATCGCATTGGA
FGFR2-10	1082-1102	AAGCGGCTCCATGCTGTGCCT
FGFR2-11	1557-1577	AAGAGATTGAGGTTCTCTATA
FGFR2-12	1771-1791	AACAGTCATCCTGTGCCGAAT
FGFR2-13	2762-2782	AAGCCAGCCAACTGCACCAAC
FGFR2-14	1178-1198	AAGGAGTTTAAGCAGGAGCAT
FGFR2-15	2151-2171	AAGATGATGCCACAGAGAAAG
FGFR2-16	2745-2765	AAGGACACAGAATGGATAAGC
FGFR2-17	1171-1191	AAACGGGAAGGAGTTTAAGCA
FGFR2-18	1222-1242	AAACCAGCACTGGAGCCTCAT
FGFR2-19	2732-2752	AAGCTGCTGAAGGAAGGACAC
FGFR2-20	1556-1576	AAAGAGATTGAGGTTCTCTAT

SS3.4.

FGFR1 gene: Human FGFR1

transcript variant 1, Accession: NM_000604, Gene ID: 13186232;
transcript variant 2, Accession: NM_015850, Gene ID: 13186250;
transcript variant 3, Accession: NM_023105, Gene ID: 13186233.
transcript variant 4, Accession: NM_023106, Gene ID: 13186235;
transcript variant 5, Accession: NM_023107, Gene ID: 13186237;
transcript variant 6, Accession: NM_023108, Gene ID: 13186240.
transcript variant 7, Accession: NM_023109, Gene ID: 13186244;
transcript variant 8, Accession: NM_023110, Gene ID: 13186246;
transcript variant 9, Accession: NM_023111, Gene ID: 13186248.

20 siRNA candidates were selected:

#	Position	Sequence
FGFR1-1	2701-2721	AACGGCCGACTGCCTGTGAAG
FGFR1-2	2275-2295	AAGTCGGACGCAACAGAGAAA
FGFR1-3	2422-2442	AAGGGCAACCTGCGGGAGTAC
FGFR1-4	2255-2275	AAGTGGCTGTGAAGATGTTGA
FGFR1-5	2319-2339	AATGGAGATGATGAAGATGAT
FGFR1-6	2237-2257	AACCCAACCGTGTGACCAAAG
FGFR1-7	2887-2907	AAGCCCAGTAACTGCACCAAC
FGFR1-8	1540-1560	AACGTGGAGTTCATGTGTAAAG
FGFR1-9	2236-2256	AAACCCAACCGTGTGACCAAA
FGFR1-10	2332-2352	AAGATGATCGGGAAGCATAAG
FGFR1-11	1153-1173	AACACCAAACCAAACCGTATG
FGFR1-12	1303-1323	AATGGCAAAGAATTCAAACCT
FGFR1-13	2905-2925	AACGAGCTGTACATGATGATG
FGFR1-14	1636-1656	AACCTGCCTTATGTCCAGATC
FGFR1-15	2857-2877	AAGCTGCTGAAGGAGGGTCAC
FGFR1-16	1596-1616	AAAGCACATCGAGGTGAATGG
FGFR1-17	2230-2250	AAGGACAAACCCAACCGTGTG
FGFR1-18	2968-2988	AAGCAGCTGGTGGAAGACCTG
FGFR1-19	2254-2274	AAAGTGGCTGTGAAGATGTTG
FGFR1-20	1444-1464	AACCACACATACCAGCTGGAT

SS3.5.

FGFR3 gene: Human FGFR3, Accession: M58051, Gene ID: 182568
transcript variant 1, Accession: NM_000142, Gene ID: 13112046;
transcript variant 2, Accession: NM_022965, Gene ID: 13112047;
20 siRNA candidates were selected:

#	Position	Sequence
FGFR3-1	1969-1989	AACCTCGACTACTACAAGAAG
FGFR3-2	1627-1647	AAGATGATCGGGAAACACAAA
FGFR3-3	1588-1608	AAGGACCTGTCTGGACCTGGTG
FGFR3-4	865-885	AAGGTGTACAGTGACGCACAG
FGFR3-5	2263-2283	AAGCAGCTGGTGGAGGACCTG
FGFR3-6	652-672	AAGCTGCGGCATCAGCAGTGG
FGFR3-7	1540-1560	AAGCCTGTCACCGTAGCCGTG
FGFR3-8	1571-1591	AAGACGATGCCACTGACAAGG
FGFR3-9	1321-1341	AACGCGTCCATGAGCTCCAAC
FGFR3-10	1297-1317	AAGCGACAGGTGTCCCTGGAG
FGFR3-11	2191-2211	AACTGCACACACGACCTGTAC
FGFR3-12	994-1014	AAGGAGCTAGAGGTTCTCTCC
FGFR3-13	1570-1590	AAAGACGATGCCACTGACAAG
FGFR3-14	982-1002	AACACCACCGACAAGGAGCTA
FGFR3-15	1873-1893	AAGTGCATCCACAGGGACCTG
FGFR3-16	331-351	AATGCCTCCCACGAGGACTCC
FGFR3-17	1813-1833	AAGGACCTGGTGTCTGTGCC
FGFR3-18	2152-2172	AAGCTGCTGAAGGAGGGCCAC
FGFR3-19	1723-1743	AACCTGCGGGAGTTTCTGCGG
FGFR3-20	265-285	AAGGATGGCACAGGGCTGGTG

SS3.6.

FGFR4 gene: Human FGFR4, Accession: L03840, Gene ID: 182570
transcript variant 1, Accession: NM_002011, Gene ID: 47524172;
transcript variant 2, Accession: NM_022963, Gene ID: 47524176;
transcript variant 3, Accession: NM_213647, Gene ID: 47524174;
20 siRNA candidates were selected:

#	Position	Sequence
FGFR4-1	726-746	AAGGATGGACAGGCCTTTCAT
FGFR4-2	2403-2423	AAGGTCCTGCTGGCCGTCTCT
FGFR4-3	1743-1763	AAGCTGATCGGCCGACACAAG
FGFR4-4	1085-1105	AAAGACTGCAGACATCAATAG
FGFR4-5	292-312	AAGAGCAGGAGCTGACAGTAG
FGFR4-6	1657-1677	AAGCCAGCACTGTGGCCGTCA
FGFR4-7	753-773	AACCGCATTGGAGGCATTTCGG
FGFR4-8	1833-1853	AAGGGAAACCTGCGGGAGTTC
FGFR4-9	1392-1412	AAGCTCTCCCGCTTCCCTCTG
FGFR4-10	1078-1098	AAGTCCTAAAGACTGCAGACA
FGFR4-11	1692-1712	AACGCCTCTGACAAGGACCTG
FGFR4-12	604-624	AAGCACCTACTGGACACACC
FGFR4-13	1086-1106	AAGACTGCAGACATCAATAGC
FGFR4-14	1686-1706	AAAGACAACGCCTCTGACAAG
FGFR4-15	666-686	AACACCGTCAAGTTCCGCTGT
FGFR4-16	1454-1474	AAGCTCATCCCTGGTACGAGG
FGFR4-17	984-1004	AAGGTGTACAGCGATGCCAG
FGFR4-18	1687-1707	AAGACAACGCCTCTGACAAGG
FGFR4-19	1764-1784	AACATCATCAACCTGCTTGGT
FGFR4-20	504-524	AATCTCACCTTGATTACAGGT

SS4. HGF pathway**SS4.1.**

HGF Receptor gene: Human HGF receptor (MET), Accession: NM_000245,
Gene ID: 42741654:

#	Position	Sequence
MET-1	341-361	AACACCCATCCAGAATGTCAT
MET-2	505-525	AAGCCAATTTATCAGGAGGTG
MET-3	1494-1514	AAGTCCTCTTAACATCTATAT
MET-4	1021-1041	AATCAGGTTCTGTTCCATAAA
MET-5	2723-2743	AAGCCAGTGATGATCTCAATG
MET-6	3929-3949	AAGTGGATGGCTTTGGAAAGT
MET-7	3747-3767	AAGTAGCCAAAGGCATGAAAT
MET-8	1066-1086	AATGCCTCTGGAGTGTATTCT
MET-9	281-301	AAGTCCGAGATGAATGTGAAT
MET-10	2111-2131	AATGGCCACGGGACAACACAA
MET-11	1682-1702	AATGGCTACACACTGGTTATC
MET-12	2722-2742	AAAGCCAGTGATGATCTCAAT
MET-13	838-858	AAGGCTAAAGGAAACGAAAGA
MET-14	3154-3174	AAGCCCAACTACAGAAATGGT
MET-15	1681-1701	AAATGGCTACACACTGGTTAT
MET-16	1382-1402	AATAGGACACTTCTGAGAAAT
MET-17	734-754	AAAGTCCTTTTCATCTGTAAAG
MET-18	1364-1384	AATCATGAGCACTGCTTTAAT
MET-19	2529-2549	AAGCAGGAAGGAACTTTACAG
MET-20	334-354	AACACCCATCCAGAATGTCAT

SS5. Other Pathways-1

SS5.1.

PAK4-1	AACTTCGAGCACCGCGTGCAC
PAK4-2	AAGACCATCGTGCGGGGCAGC
Hepsin-A	AAGGTGGCAGCTCTCACTGCG
Hepsin-B	AACAGCGAGGAGAACAGCAAC
Antrogen R-A	AAGACCTACCGAGGAGCTTTC
Antrogen R-B	AAGAGACTAGCCCCAGGCAGC

SS5.3.

HP BRCA2-A			AAGTCAACCACAGAGTCGTAT	247-268
HP BRCA2-B			AAGTAACGAGTGAGCCACGCT	215-235
NOXA-A			AAGTCGAGTGTGCTACTCAAC	238-258
NOX			AACTGAACTTCCGGCAGAAAC	277-297
Novel ZF Protein			AATGCGGAGAACACTAATTAT	345-365
Novel ZF Protein			AACTTCCATAAATGTGAAATC	381-401
NFAT4			AAGTGATACTCCCGCCTCAGC	726-746
NFAT4			AAGTAGCTGGCACTACGGGCA	752-772
Co-factor of SP1			AATCAGGTTCCAATGTGATGA	200-221
Co-factor of SP1			AAGGCTTAGCTCCCAAGCCTC	145-165
Ets2 Repressor			AAGGCAGATCCAGCTGTGGCA	194-214
Ets2 Repressor			AAGCCAGAGTCGTCCCCTGGC	171-191
PKC related			AAGTCTTCCGTTTTCTGAGAA	69-89
PKC related			AATGGTGCAGCAGAAATTGGA	126-136
PKC eta			AAGAAGGGCCACCAGCTGCTG	269-289
PKC eta			AACGTCACCGACGGCGGCCAC	389-409
Mitochondrial F0			AACCTCGGGCAGAAGAGGAGA	164-184
Mitochondrial F0			AACTGAAACGGATTGCCAGAG	211-231
Bcl-2 TF			AAGAAGCGATACAGGTCTCGT	91-111
Bcl-2 TF			AAGGTCTCGTAGTAGAGATCG	126-146
Bcl-2 A1			AACCTGGATCAGGTCCAAGCA	257-277
Bcl-2 A1			AATCTGAAGTCATGCTTGGAC	334-354
RAP1			AACAGAGGAGGACTACATTCC	267-287
RAP1			AACCACGAAATCACCAGCATC	379-399

SS5.4.

Hpv-16E6	AAGTTACCAGATTTATGCACA
Hpv-16E6	AACAGTTACTGCGACGTGAGG
Hpv-16E7	AATATATGTTAGATTTGCAAC
Hpv-16E7	AATAGATGGTCCAGCTGGACA
Hpv-18E6	AACACGCGCACCCTACAAGCT
Hpv-18E6	AACTTACAGAGGTATTTGAAT
Hpv-18E7	AAGGCAACATTGCAAGACATT
Hpv-18E7	AATAGATGGAGTTAATCATCA

SS5.5.

DICER -A	AB028449	AATGGGTCCTTTCTTTGGACT
DICER -B		AACTGCTTGAAGCAGCTCTGG
MD2 PROTEIN-A	NM_015364	AAGCTCAGAAGCAGTATTGGG
MD2 PROTEIN-B		AATGCAATACCCAATTTCAAT
GAGE-2-A	U19143	AATGATTGGGCCTATGCGGCC
GAGE-2-B		AAGTGGAACCAGCAACACCTG
BREAST TA 84-A	NM_015966	AAGACTTTGGAGGACTTCCGG
BREAST TA 84-B		AAGTCGCGGGGAGATAAACTG
EGFR-RP-A	AK026010	AAGCTGGACATTCCCTCTGCG
EGFR-RP-B		AAGAGCCCAGCTTCCTGCAGC
ENDOPLASMIN 94-A	AK025862	AACTGTTGAGGAGCCCATGGA
ENDOPLASMIN 94-B		AATCTGATGATGAAGCTGCAG
FOLATE BP-A	AF000381	AACCGCGGTCCTATTCCATTA
FOLATE BP-B		AACACTCCAATTTTTCAAAGT
RALA BP-A	NM_006788	AACACCGCAGGGTGGAGCATG
RALA BP-B		AAGAGATCAGCCCTACTAAGT
GRB2 BP-A	BC000631	AAGGGGGGACATCCTCAAGGT
GRB2 BP-B		AATCCCCAGAGCCAAGGCAGA
CDR-62-A	L02867	AAGCGCCAGGCCCCGCGTGGG
CDR-62-B		AAGAGGAGTCCTGGTACGACC
A-RAF-A	U33821	AAGAGTTACCTTCCTAATGCA
A-RAF-B		AAGATTGGGTTGGTATATTCA
NOVEL-1-A	NM_017873	AATCCTTGTTCTCACTGAGCT
NOVEL-1-B		AAGATGGCTGAGCTGGGGCTG
MAC30-A	L19183	AACCGACAGACTATGGGGGCT
MAC30-B		AACCTGCTGAAGTGGTATGCT
GRANULIN -A	NM_002087	AACGCGGTGCCCAGATGGTCA
GRANULIN -B		AATGGCCCACAACACTGAGCA
HCA ANTI. 58-A	NM_016436	AAGTGGGAGCCCAGTTGGAAG

HCA ANTI. 58-B		AAGACATTGACTACGAGGAAG
MI2-BETA-A	NM_001273	AATGAAGAGGACCCAGAAGAG
MI2-BETA-B		AAGCCTAAGAAACCTCGGGAC
EGF FACTOR 8-A	NM_005928	AACCCCTGCCACAACGGTGGT
EGF FACTOR 8-B		AACCACTGTGAGACGAAATGT
APRIL-A	AK090698	AACTGCCCCAGCGATCTCTGC
APRIL-B		AACCTAATTCTCCTGAGGCTG
PGF PRECURSOR-A	AK023843	AAGAGTGACACTGTGGCTTCC
PGF PRECURSOR-B		AATGGGCTGAGCTGCTGCTCC
MELA. ANTIGEN-A	AB014518	AATCAGCTCAACACTGTCCTC
MELA. ANTIGEN-B		AAGGAGACAGTACTGAGTGCC
RALA B. PROTEIN-A	NM_006788	AACACCGCAGGGTGGAGCATG
RALA B. PROTEIN-B		AAGAGATCAGCCCTACTAAGT

SS6. siRNA Target Sequence for RSV

SS6.1.

Gene targets common to subgroups A and B (strains B1 and 9230 of RSV)

Target gene*	Sequence (5' to 3')**	Position on A2 (M734568)	Position on B1 (NC-001781)	Position on 9230 (AY353550)
Leader/NS1 (-) strand	AATGGGGCAAATAAGAATTTG	42-62	42-62	42-62
Leader/NS1	AATGGGGCAAATAAGAATTTg	42-62	42-62	42-62
N	AAGATGGCTCTTAGCAAAGTc	1137-1157	1137-1157	1135-1155
P	AATTCCTAGAATCAATAAAGg	2401-2421	2403-2423	2401-2421
M	AAGCTTCACGAAGGCTCCACA	3279-3299	3281-3301	3279-3299
SH	NA			
G	NA			
F	AATGATATGCCTATAACAAAt	6444-6464	6449-6469	6447-6467
M2	AAGATAAGAGTGTACAATACT	7975-7995	7987-8007	7986-8006
M2/L	NA			
L	AACATCCTCCATCATGGTTAA	9090-9110	9101-9121	9100-9120
L	AAGTACTAATTTAGCTGGACA	12973-12993	12984-13004	12983-13003
L	AAGATTGCAATGATCATAGTT	14133-14153	14144-14164	14143-14163
L	AACATTCATTGGTCTTATTTA	14243-14263	14254-14274	14253-14273

SS6.2.

Gene targets specific for subgroup A (Strains A2 & F/P of Long strains of RSV)

Target gene	Sequence (5' to 3')*	Position in A2 genome (M734568)
Leader (-) strand	AAATGCGTACAACAACTTGC	9-29
Leader	AACAAACTTGCATAAACCCAAA	19-39
NS1	AAGAATTTGATAAGTACCACT	54-74
NS1	AACTAACGCTTTGGCTAAGGC	209-229
NS2	AATAAATCAATTCAGCCAACC	602-622
NS2	AACTATTACACAAAGTAGGAA	830-850
N	AACAAAGATCAACTTCTGTCA	1176-1196
N	AAGAAATGGGAGAGGTAGCTC	1558-1578
P	AATTCAACTATTATCAACCCA	2520-2530
P	AACAATGAAGAAGAATCCAGC	2676-2696
M	AAATAAAGATCTGAACACACT	3770-3790
M	AAATATCCACACCCAAGGGAC	3442-3462
M	AAATAAAGATCTGAACACACT	3770-3790
SH	AACATAGACAAGTCCACACAC	4266-4286
SH	AACAATAGAATTCTCAAGCAA	4320-4340
G	AAACAAGGACCAACGCACCGC	4696-4716
G	AACTTCACTTATAATTGCAGC	4840-4860
F	AAATAAGTGTAATGGAACAGA	5858-5878
F	AAACAATCGAGCCAGAAGAGA	5969-5989
M2	AAATAAGTGGAGCTGCAGAGT	7781-7801
M2	AACAATCAGCATGTGTTGCCA	7880-7900
M2/L	NA	
L	AAGTTACATATTCAATGGTCC	8593-8613
L	AACTAAATATAACACAGTCCT	8685-8905
Trail	NA	

SS6.3.

Gene targets specific for subgroup B (Strains B1 and 9320)

Target gene	Sequence (5' to 3')*	Position in B1 genome (NC-001781)	Position in 9320 genome (AY353550)
Leader (-) strand	AATGCGTACTACAAACTTGCA	10-30	10-30
Leader	AAATGCGTACTACAAACTTGCA	9-29	9-29
NS1	AATTAATTCTTCTGACCAATG	196-216	196-216
NS1	AACAAGCAGTGAAGTGTGCC	278-298	278-298
NS2	AATAATAACATCTCTCACCAA	700-720	700-720
NS2	AATGTATTGGCATTAAAGCCTA	936-956	936-956
N	AAATAAGGATCAGCTGCTGTC	1175-1195	1173-1193
N	AACAAACTATGTGGTATGCTA	1272-1292	1270-1290
P	AATAAAGGGCAAGTTCGCATC	2416-2436	2414-2434
P	AACAAATGACAACATTACAGC	2725-2745	2723-2743
M	AATATGGGTGCCTATGTTCCA	3361-3381	3359-3379
M	AACATACTAGTGAAGCAGATC	3428-3448	3426-3446
SH	AAATACATCCATCACAATAGA	4308-4328	4306-4326
SH	AAACATTCTGTAAACAATACTC	4445-4465	4443-4463
G	AATCTATAGCACAAATAGCAC	4796-4816	4794-4814
G	AATATTCATCATCTCTGCCAA	4866-4886	4864-4884
F	AAAGAAACCAAATGCAATGGA	5858-5878	5856-5876
F	AAACAAAGCTGTAGTCAGTCT	6187-6207	6185-6205
M2	AAATAAGTGGAGCTGCTGAAC	7793-7813	7792-7812
M2	AACAATCAGCATGTGTTGCTA	7892-7912	7892-7911
M2/L	NA		
L	AAATAACATCACAGATGCAGC	9591-9611	9590-9610
L	AATACCTACAACAGATGGCCC	9931-9951	9930-9950
Trail	NA		

SS7

SS7.1. siRNA targeted sequences for SARS coronavirus inhibition

Name	Coding Region	Position (nt)	Sequence (5'-3')
SC07	5'UTR	146-166	aacgagtaactcgtccctctt
SC08	ORF1a, nsp-1	594-614	aattgcataaccgcaatgttct
SC06	ORF1a, nsp-3	2721-2741	aacctttggagaagatactgt
SC03	ORF1a, nsp-3	2772-2792	aatcacatttgagcttgatga
SC09	ORF1a, nsp-3	3236-3256	aacctacacctgaagaaccag
SC10	ORF1a, nsp-3	4172-4192	aaggatgtgctggttatacac
SC11	ORF1a, nsp-3	5758-5778	aaaggaccagtgactgatgtt
SC12	ORF1a, nsp-3	8096-8116	aaggtgttggtgataccgatg
SC13	ORF1a, nsp-6	11074-11094	aagcacgcattcttgtgcttg
SC05	ORF1b, nsp-12	13530-13550	aaggatgaggaaggcaattta
SC01	ORF1b, nsp-12	13603-13623	aagagactattttataacttgg
SC16	ORF1b, nsp-12	14758-14778	aactcctattcgtagttgaag
SC17	ORF1b, nsp-13	16756-16776	aaggtgactatggtgatgctg
SC14	ORF1b, nsp-13	17544-17564	aaggataagtcagctcaatgc
SC18	ORF1b, nsp-14	18264-18284	aacctacctctccagctagga
SC15	ORF1b, nsp-16	20843-20863	aactggcacactacttgtcga
SC02	ORF2, Spike	21553-21573	aagctcctaattacactcaac
SC04	ORF2, Spike	21669-21689	aatgttacagggtttcatact
SC19	ORF2, Spike	22068-22088	aagggctatcaacctatagat
SC20	ORF2, Spike	22289-22309	aatcacagatgctgttgattg
SC21	ORF2, Spike	22951-22971	aaccttacagagttgtagtac
SC22	ORF2, Spike	23272-23292	aagatgttaactgcactgatg
SC23	ORF2, Spike	24871-24891	aagagctggacaagtacttca
SC37	ORF3a	25330-25350	aagtactgttcattgctacagc
SC38	ORF3a	25599-25619	aatgcatcaacgcattgtagaa
SC39	ORF3a	25618-25638	aattattatgagatgttggtct
SC40	ORF3a	25764-25784	aaggtgacggcatttcaacac
SC41	ORF3a	25805-25825	aaattactacagacactggta
SC42	ORF3a	25929-25949	aaaatgctacattcttcatct
SC43	ORF3a	25984-26004	aatacacacaatcgacggctc
SC24	ORF4, E-protein	26121-26141	aagaaacagggtacgttaatag
SC25	ORF4, E-protein	26137-26157	aatagtttaatagcgtacttct
SC34	ORF4, E-protein	26170-26190	aagcacattgacgcatacaaa
SC26	ORF4, E-protein	26219-26139	tgtgcgtactgctgcaatatt
SC36	ORF4, E-protein	26230-26250	aagactgatgaagctcagcct
SC27	ORF4, E-protein	26307-26327	aaggagttcctgatcttctgg
SC28	ORF5, M-protein	26440-26460	aacctagtaataggtttccta
SC29	ORF5, M-protein	26628-26648	aatggcttgattgttaggctt
SC30	ORF5, M-protein	26760-26780	aattgtgaccagaccgctcat
SC33	ORF5, M-protein	26789-26809	aaccagcttgagagcaaagtt
SC31	ORF5, M-protein	26876-26896	aagagatcactgtggctacat
SC32	ORF5, M-protein	26968-26988	aaccgctaccgtattggaaac
SC44	ORF7	27355-27375	aaccttgcccatcaggaacat
SC45	ORF7	27425-27445	aacttgactagcacacactt
SC46	ORF7	27541-27561	aagagctctactcgccacttt
SC47	ORF9a, N-protein	28176-28196	aactgacaataaccagaatgg
SC48	ORF9a, N-protein	28355-28375	aaattggctactaccgaagag

SC35	ORF9a, N-protein	28904-28924	aacagtacaacgtcactcaag
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SS8, TNF pathway

TNF pathway

SS8.1.

TNF gene: human TNF (synonyms: DIF, TNFA, TNFSF2, TNF-alpha),

Accession : NM_000594, Gene ID: 25952110

10 siRNA candidates were selected:

#	Position	Sequence
hTNF-1	428-448	AAGCCTGTAGCCCATGTTGTA
hTNF-2	512-532	AATGGCGTGGAGCTGAGAGAT
hTNF-3	671-691	AACCTCCTCTCTGCCATCAAG
hTNF-4	533-553	AACCAGCTGGTGGTGCCATCA
hTNF-5	731-751	AAGCCCTGGTATGAGCCCATC
hTNF-6	497-517	AATGCCCTCCTGGCCAATGGC
hTNF-7	779-899	AAGGGTGACCGACTCAGCGCT
hTNF-8	181-201	AAGCATGATCCGGGACGTGGA
hTNF-9	665-685	AAGGTCAACCTCCTCTCTGCC
hTNF-10	180-200	AAAGCATGATCCGGGACGTGG

SS8.2.

hTNFR1 gene: human TNF receptor, 1A (synonyms: TNFRSF1A, FPF, p55, p60, TBP1, TNF-R, TNFAR, TNFR1,p55-R, CD120a, TNFR55, TNFR60, TNF-R-I, TNF-R55, MGC19588), Accession : NM_001065, Gene ID: 23312372

20 siRNA candidates were selected:

#	Position	Sequence
hTNFR1-1	666-686	AAGAACCAGTACCGGCATTAT
hTNFR1-2	1005-1025	AAGCTCTACTCCATTGTTTGT
hTNFR1-3	1320-1340	
	AAGCCACAGAGCCTAGACACT	
hTNFR1-4	841-861	AAAGCCTGGAGTGCACGAAGT
hTNFR1-5	472-492	AAGGAACCTACTTGTACAATG
hTNFR1-6	714-734	AATTGCAGCCTCTGCCTCAAT
hTNFR1-7	605-625	AATGGGTCAGGTGGAGATCTC
hTNFR1-8	669-689	AACCAGTACCGGCATTATTGG
hTNFR1-9	471-491	AAAGGAACCTACTTGTACAAT
hTNFR1-10	462-482	AAGTGCCACAAAGGAACCTAC
hTNFR1-11	604-624	AAATGGGTCAGGTGGAGATCT
hTNFR1-12	810-830	
	AACGAGTGTGTCTCCTGTAGT	
hTNFR1-13	888-908	
	AAGGGCACTGAGGACTCAGGC	
hTNFR1-14	809-829	AAACGAGTGTGTCTCCTGTAG
hTNFR1-15	991-1011	AACGGTGGAAGTCCAAGCTCT
hTNFR1-16	768-788	AACACCGTGTGCACCTGCCAT
hTNFR1-17	732-752	AATGGGACCGTGCACCTCTCC
hTNFR1-18	1089-1109	AACCCAAGCTTCAGTCCCCT
hTNFR1-19	476-496	AACCTACTTGTACAATGACTG
hTNFR1-20	444-464	AATTCGATTTGCTGTACCAAG

SS8.3.

hTNFR2 gene: human TNF receptor, 1B (synonyms: TNFRSF1B, p75, TBPII, TNFBR, TNFR2, CD120b, TNFR80, TNF-R75, p75TNFR, TNF-R-II),
Accession : NM_001066, Gene ID: 23312365. 20 siRNA candidates were selected:

#	Position	Sequence
hTNFR2-1	844-864	AAGGGAGCACTGGCGACTTCG
hTNFR2-2	957-977	
	AAGCCCTTGTGCCTGCAGAGA	
hTNFR2-3	412-432	
	AAGCCTGCACTCGGGAACAGA	
hTNFR2-4	1362-1382	AAGGAGGAATGTGCCTTTTCGG
hTNFR2-5	294-314	AAGACCTCGGACACCGTGTGT
hTNFR2-6	351-371	AACTGGGTTCCTCGAGTGCTTG
hTNFR2-7	784-804	AACCCAGCACTGCTCCAAGCA
hTNFR2-8	1301-1321	AATGGGAGACACAGATTCCAG
hTNFR2-9	979-1099	AAGCCAAGGTGCCTCACTTGC
hTNFR2-10	914-934	AATAGGAGTGGTGAAGTGTGT
hTNFR2-11	1227-1247	AATGTCACCTGCATCGTGAAC
hTNFR2-12	600-620	
	AACACGACTTCATCCACGGAT	
hTNFR2-13	1288-1308	
	AAGCCAGCTCCACAATGGGAG	
hTNFR2-14	432-452	AACCGCATCTGCACCTGCAGG
hTNFR2-15	984-1004	AAGGTGCCTCACTTGCTGCC
hTNFR2-16	800-820	AAGCACCTCCTTCCTGCTCCC
hTNFR2-17	954-974	AAGAAGCCCTTGTGCCTGCAG
hTNFR2-18	1245-1265	AACGTCTGTAGCAGCTCTGAC
hTNFR2-19	1369-1389	AATGTGCCTTTTCGGTCACAGC
hTNFR2-20	776-796	
	AACTCCAGAACCCAGCACTGC	

SS8.4.

mouse IL-1b	AGGCTCCGAGATGAACAACAA
mouse IL-1b	TACCTGTCCTGTGTAATGAAA
mouse IL-1r	ACCATCGAGGTTACTAATGAA
mouse IL-1r	TCGGAATATCTCCCATCATAA
mouse IL-1a	TCGGGAGGAGACGACTCTAAA
mouse IL-1a	CCAGAGTGATTTGAGATACAA
mouse IL-1r2	CACGTTTATCTCGGCTGCTTA
mouse IL-1r2	AAGACTGATAGTCCCGTGCAA
mouse TNF receptor a	AAGGAAAGTATGTCCATTCTA
mouse TNF receptor a	CCGCAACGTCCTGACAATGCA
mouse TNF receptor b	CCAGGTTGTCTTGACACCCTA
mouse TNF receptor b	CTGGCTATTCCCGGAAATGCA

mouse TNF

CACGTCGTAGCAAACCACCAA

mouse TNF

CAGCCGATTTGCTATCTCATA